

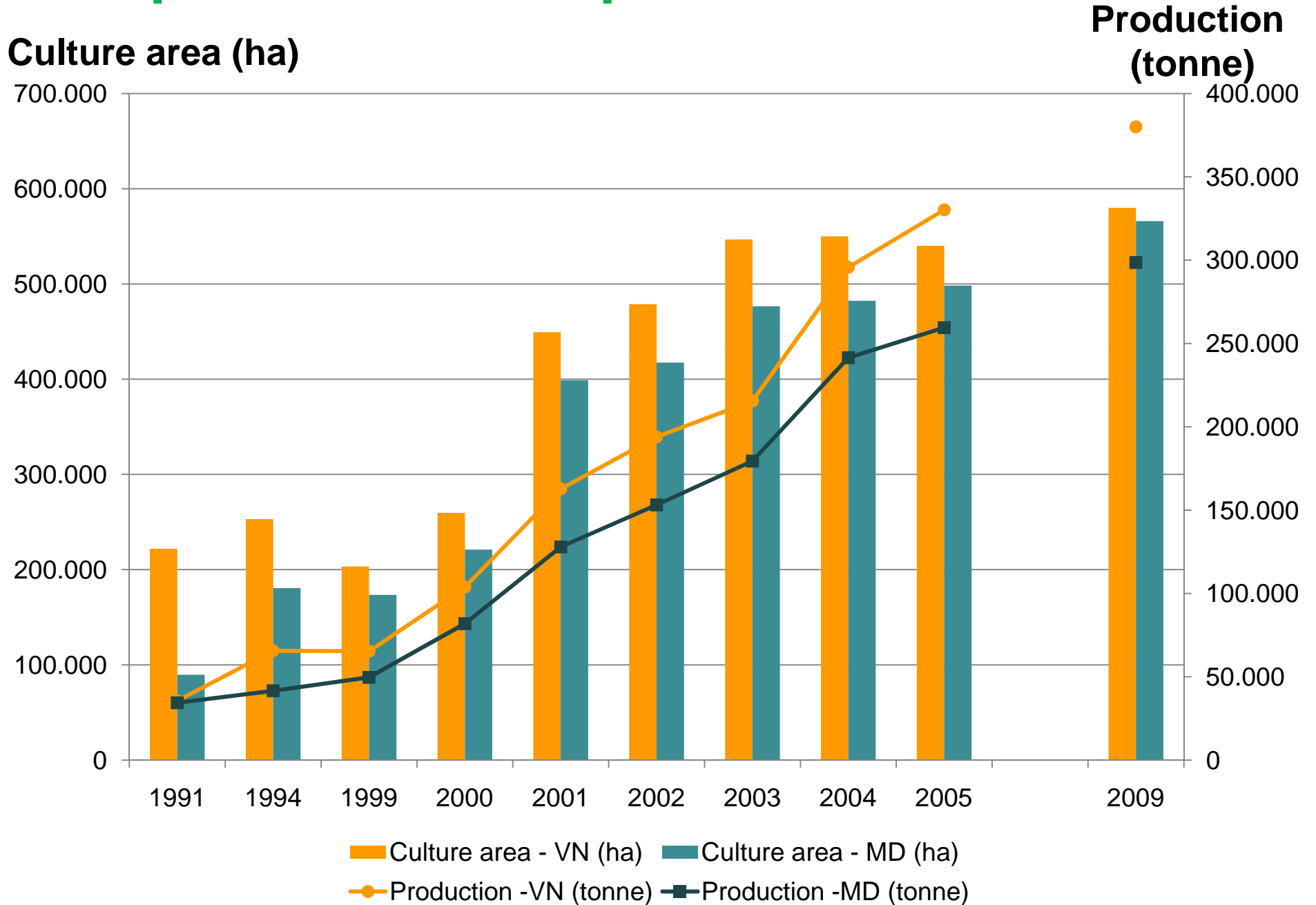
# **Status and prospects of backyard fish/shellfish hatcheries in Vietnam**

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**Sep 2009**

**Ghent - Belgium**

# Shrimp culture area and production in Vietnam



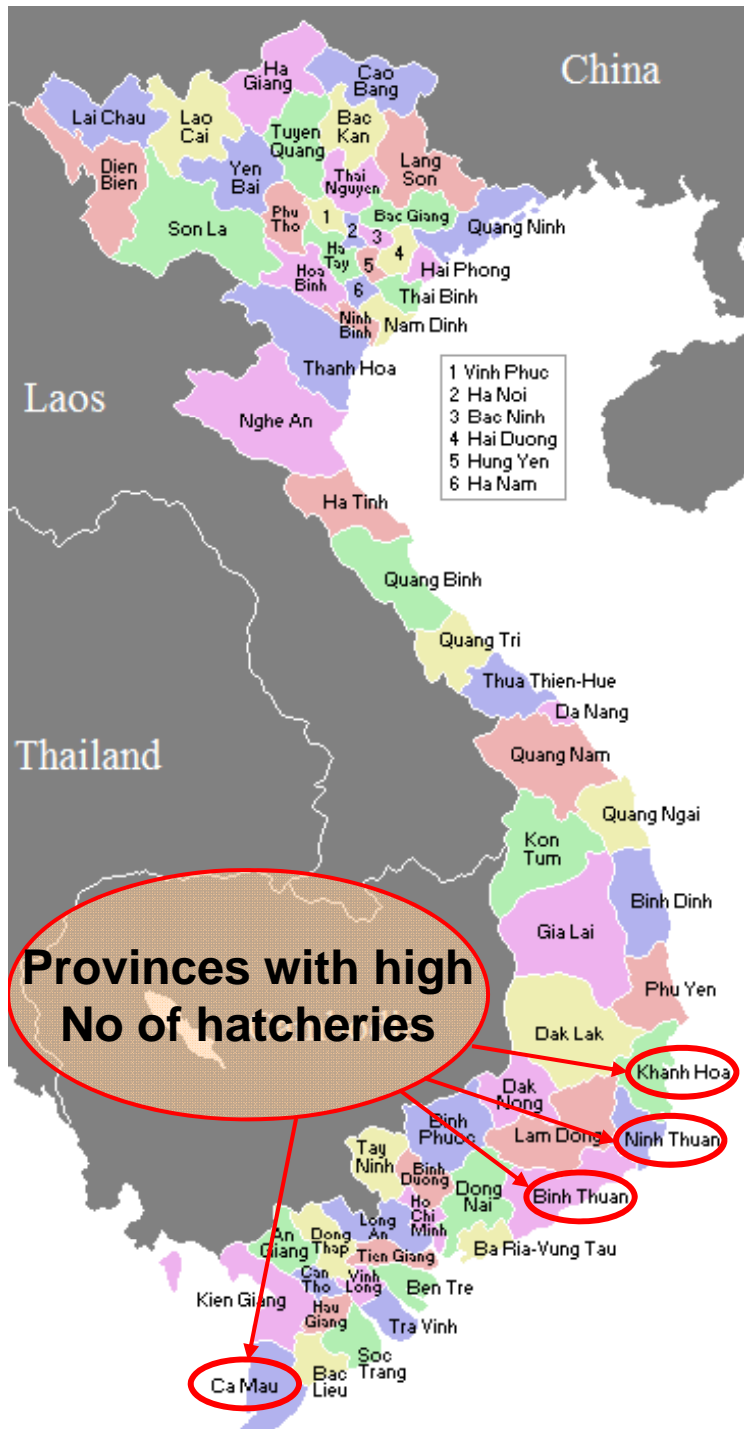
# Status of shrimp culture in 2009



■ *Penaeus monodon*    ■ *Litopenaeus vannamei*

# Backyard hatchery development in Vietnam

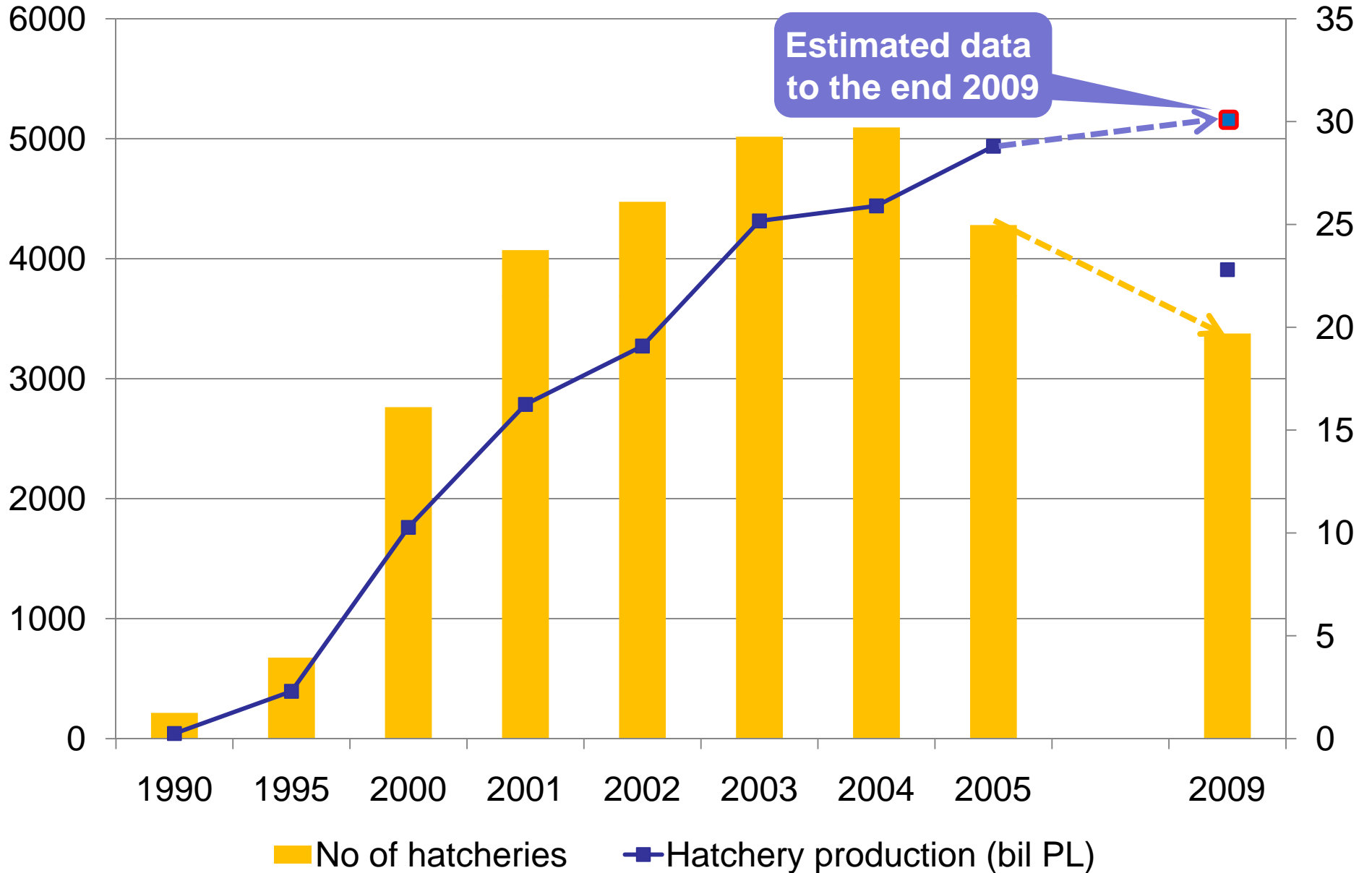
- Developed along with the development of shrimp culture in Vietnam, especially in Mekong Delta.
- Started from 1984 around Qui Nhon and Nha Trang after the establishment of FAO hatchery in Qui Nhon 1982.
- Increased dramatically from 16 hatcheries (3.3 million PL) in 1986 to the peak of 5.094 hatcheries (25.9 billion PL) in 2004.



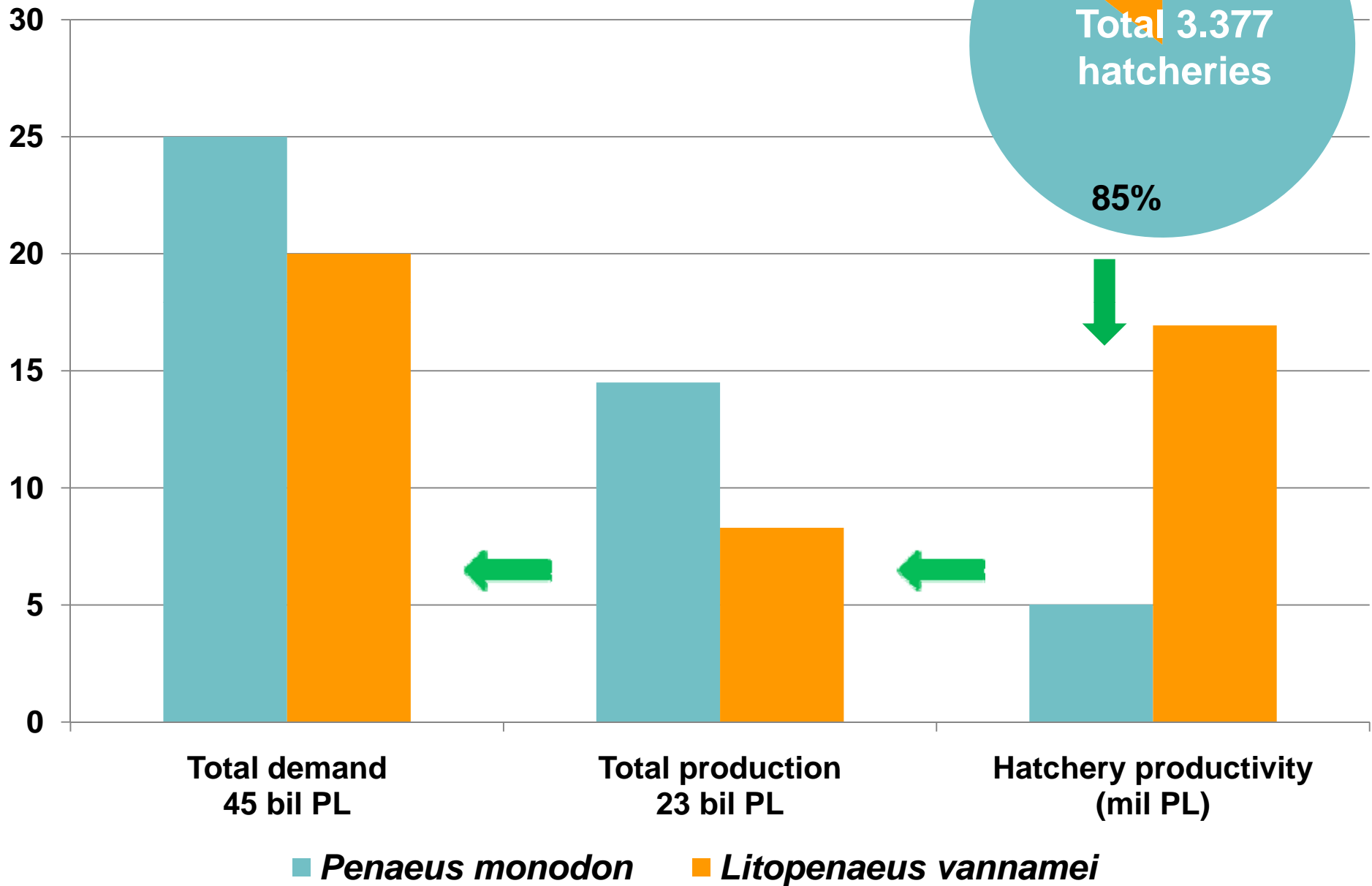
# No and production of shrimp hatcheries

Hatchery No

No of PL in bil.

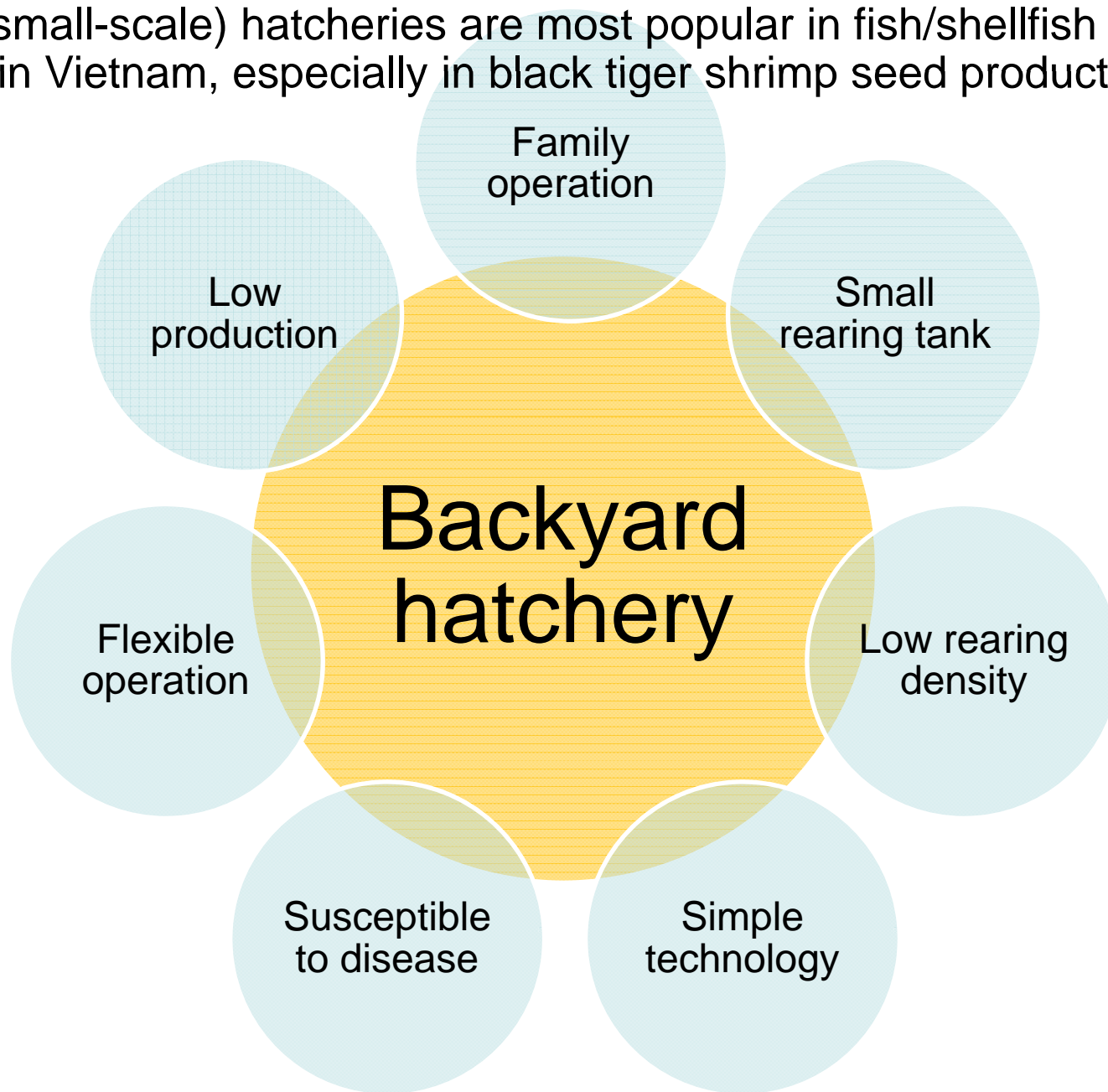


# Status of shrimp hatchery in 2009



# Features of shrimp backyard hatchery

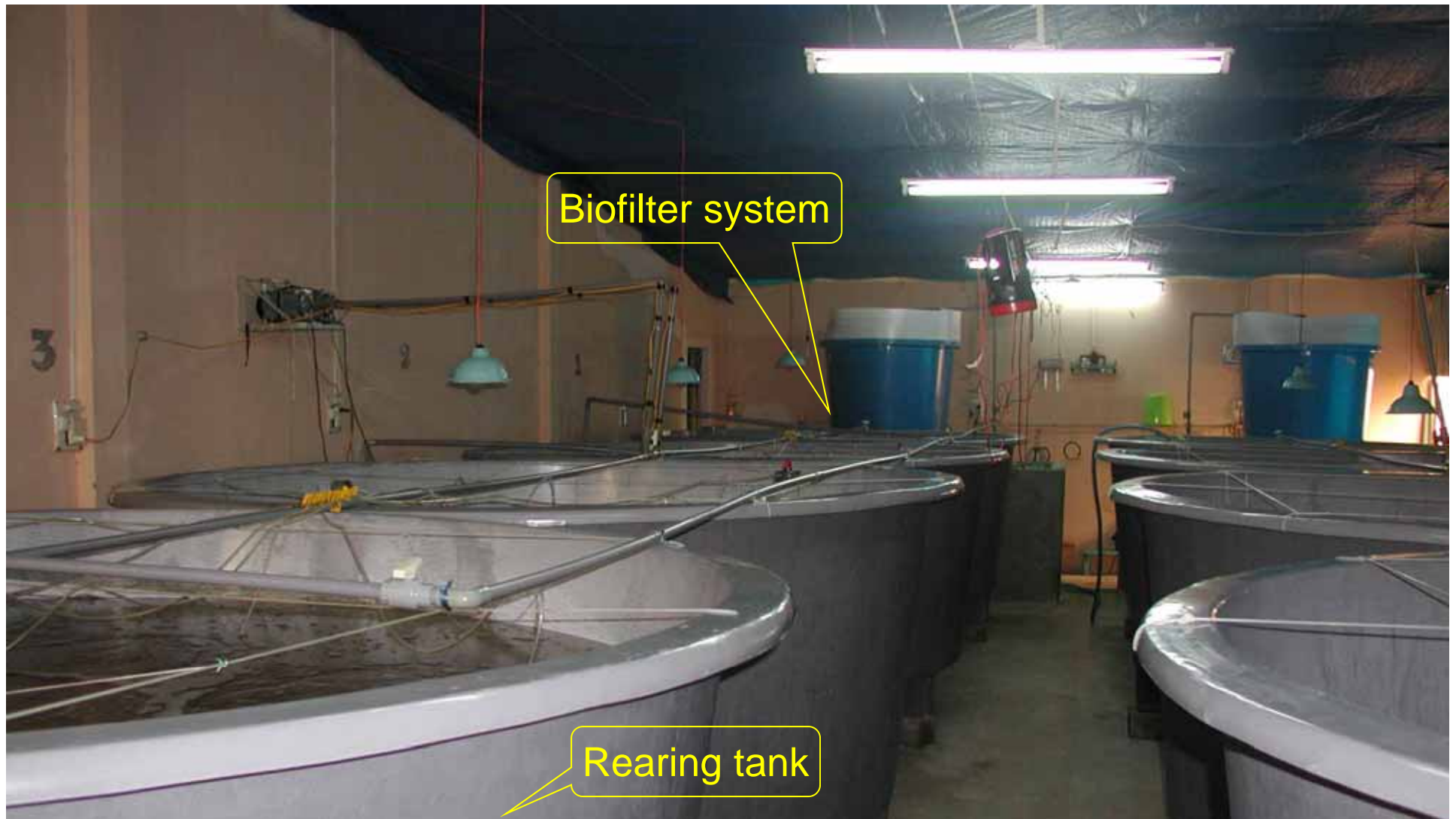
Backyard (small-scale) hatcheries are most popular in fish/shellfish seed production in Vietnam, especially in black tiger shrimp seed production



# Technical features of shrimp backyard hatchery

## Culture system

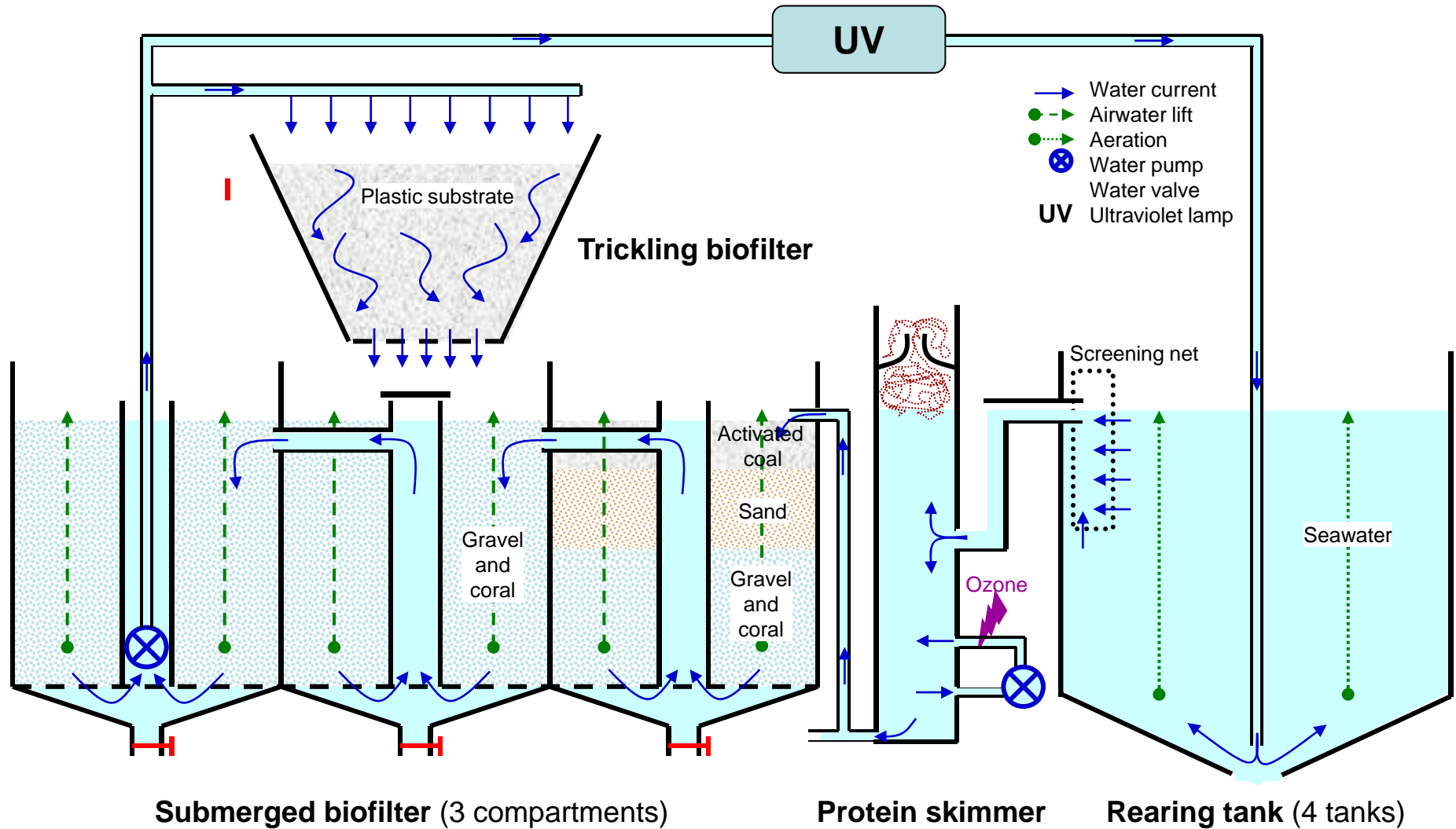
Mainly flow-through (with sand filter or/and chlorination), some start using recirculating system (only in Mekong Delta)





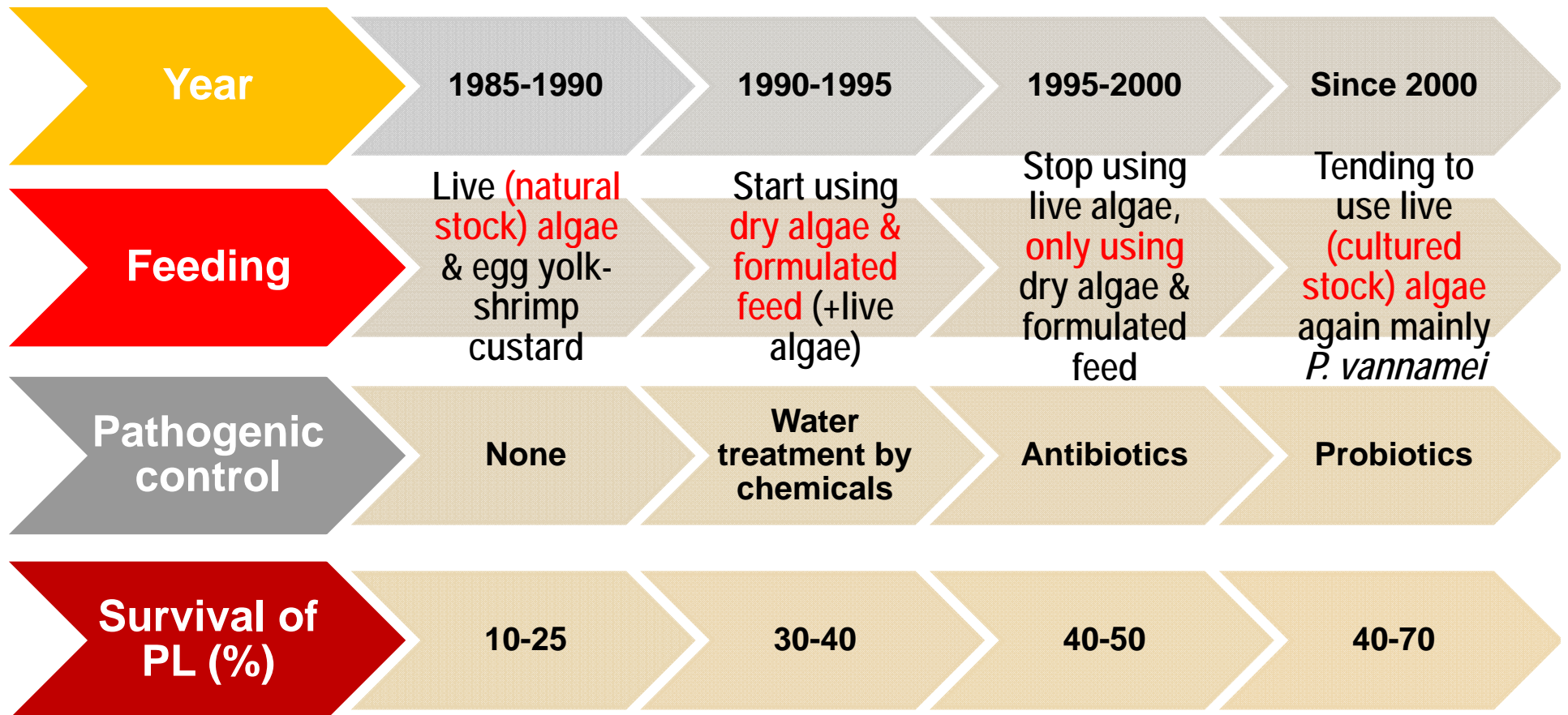
# Technical features of shrimp backyard hatchery

## Diagram of a recirculating system in a shrimp hatchery

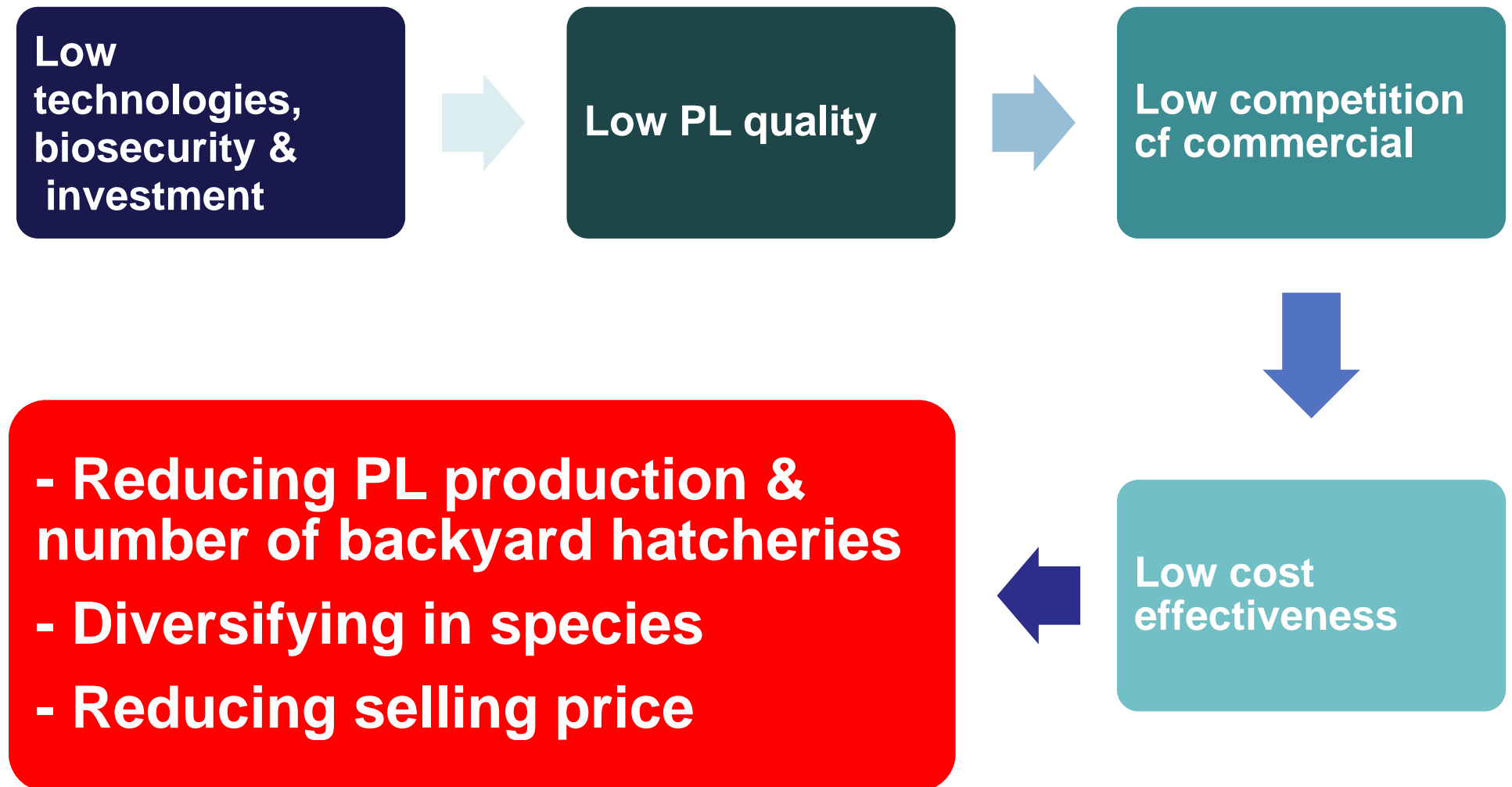


# Technical features of shrimp backyard hatchery

## Feeding & pathogenic control



# Present status of shrimp backyard hatcheries



# Macrobrachium hatchery

- Starting from 1985 with a FAO hatchery project in Vung Tau.
- Mainly developed in Mekong Delta in freshwater area from 2002.
- Using brine (~100 ppt) shipped from salt-farms to dilute to brackish water of 12 ppt.
- Most using greenwater systems. Some using recirculating systems.



**A backyard *Macrobrachium rosenbergii* hatchery using recirculating system**



# Spotted Babylon hatchery

- Seed production started after year 2000 in Central Vietnam
- Number of hatcheries has increased from 2004-2005
- Most of Spotted Babylon hatcheries were modified from shrimp hatcheries

Spotted Babylon  
(*Babylonia areolata*)



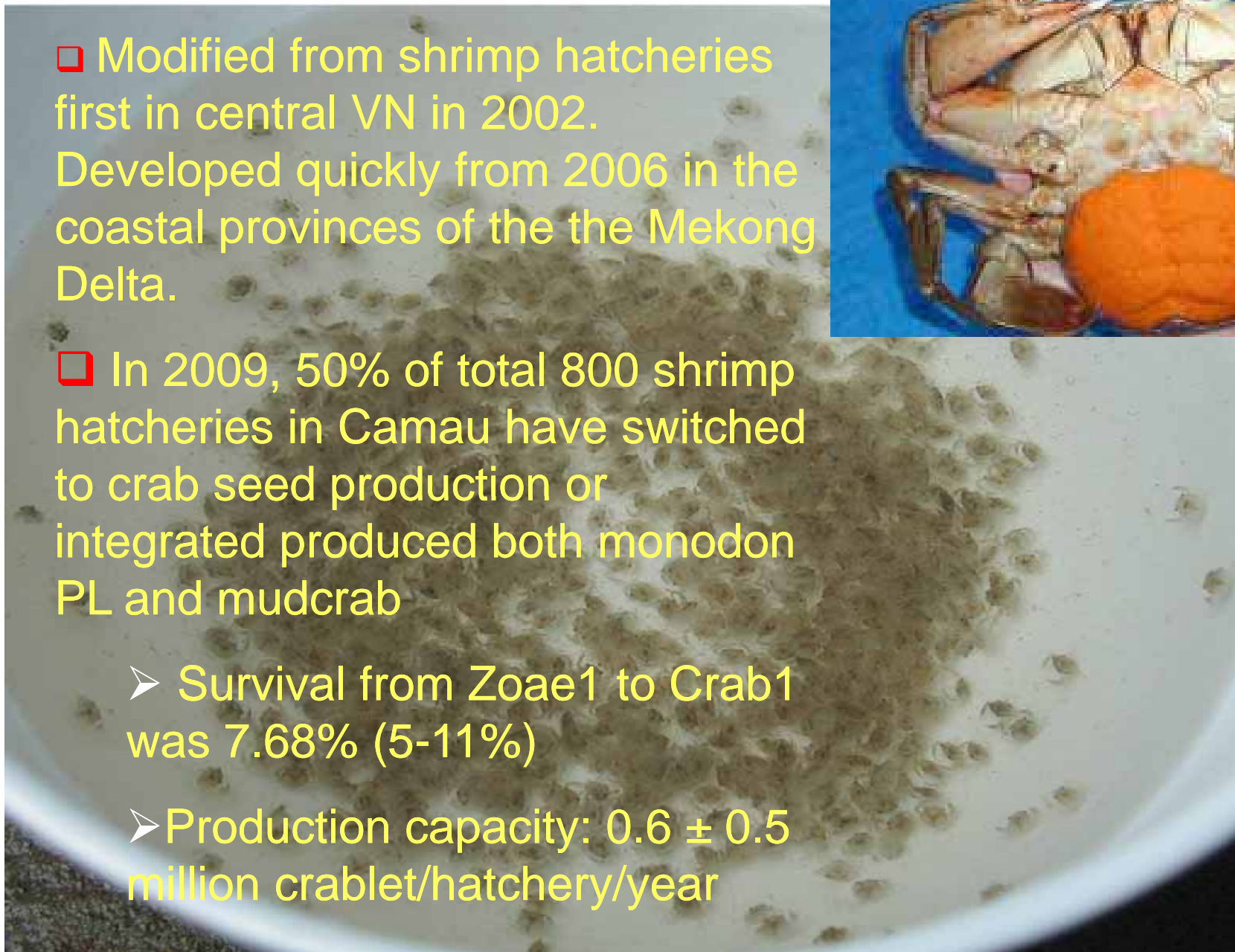
# Mudcrab hatchery

❑ Modified from shrimp hatcheries first in central VN in 2002. Developed quickly from 2006 in the coastal provinces of the the Mekong Delta.

❑ In 2009, 50% of total 800 shrimp hatcheries in Camau have switched to crab seed production or integrated produced both monodon PL and mudcrab

➤ Survival from Zoeae1 to Crab1 was 7.68% (5-11%)

➤ Production capacity:  $0.6 \pm 0.5$  million crablet/hatchery/year



# Finfish hatchery

- Finfish seed production in VN is still in initial stage due to slow development of finfish culture
- Hatcheries mainly work with Asian seabass (Baramundi)
- Number of hatcheries of finfish has not reported yet.



# Future prospects

**Due to flexibility of backyard hatcheries, there are still rooms for development:**

- Applying **higher technology and biosecurity** to increase the PL quality.
- **Diversify in species** to reduce seasonal/crop dependence, e.g. crab/shrimp hatcheries in Ca Mau.
- **Integrating with big commercial hatcheries** as satellite PL producers, especially, for broodstock sources :
  - + Domesticated black tiger shrimp has been introduced to Vietnam for commercial production (from 2008)
  - + Domesticated white-leg shrimp broodstock
- **Gathering into cooperatives** or companies to increase production and sales
- Practicing for certification, i.e. **GAP, BAP, BMP**



**Thanks for your attention**